# EPA's Office of Air and Radiation

## An Overview

Presentation to the Research Strategies Advisory Committee

January 2003

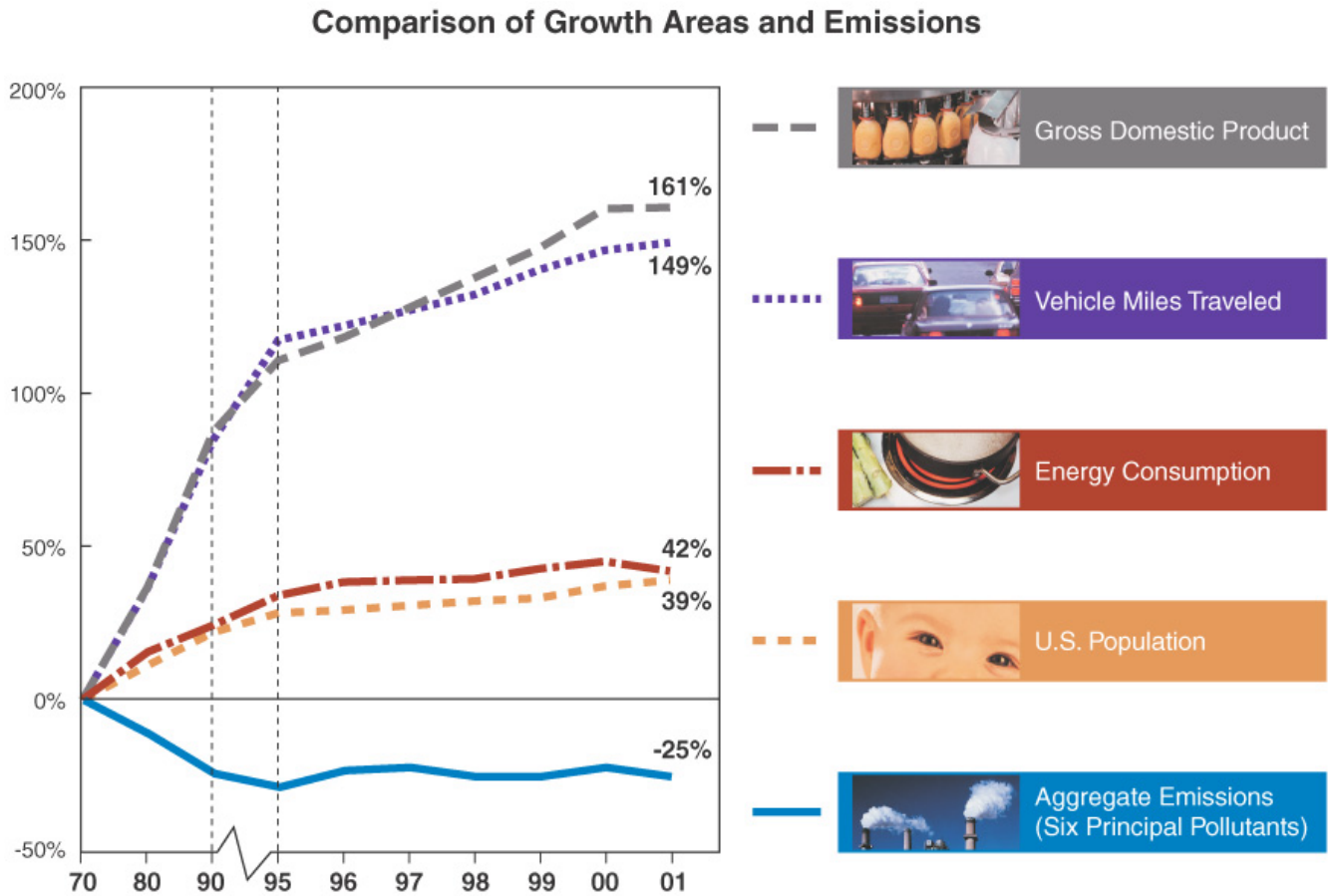
# Brookings Top 10 Areas for Continued Federal Involvement[1] (December 2001)

1. **Improve Air Quality**
2. (tied)
   - Increase arms control & disarmament
   - Reduce disease
   - Ensure safe food & drinking water
5. (tied)
   - Strengthen nation's airways system
   - Improve water quality
   - Make government more transparent to public
   - Enhance consumer protection
   - Protect the wilderness
10. (tied)
    - Reduce exposure to hazardous waste
    - Expand and protect the right to vote

[1]Light, Paul C. 2001. Government's greatest priorities of the next half century, *Reform Watch* No. 4. The Brookings Institution: Washington, D.C.

# Progress Toward Clean Air 1970-2001

## *Pollution Down While Growth Continues*



# Goals and Objectives

- **Goal 1: Clean Air**
  - Attain National Ambient Air Quality Standards
  - Reduce risk from air toxics
  - Reduce Acid deposition
- **Goal 4: Preventing Pollution and Reducing Risk in Communities, Homes, Workplaces, and Ecosystems**
  - Ensure healthier indoor air
- **Goal 5: Better Waste Management, Restoration of Contaminated Waste Sites, and Emergency Response**
  - Safe storage and clean-up of radioactive materials
- **Goal 6: Reduction of Global and Cross-Border Environmental Risks**
  - Reduce greenhouse gas emissions
  - Reduce stratospheric ozone depletion

# Human Health and Environmental Risks

- **Particulate Matter**
  - Single greatest threat from ground-level air pollution
  - Tens of thousands of premature deaths per year
  - Linked to many respiratory illnesses
- **Ozone**
  - Even at low levels, ozone can cause acute respiratory problems
  - Repeated exposure may permanently injure the lungs
- **Air Toxics**
  - Large number of substances and sources
  - Some persist in the environment (e.g., mercury & dioxins)
  - Cause cancer, reproductive disorders, birth defects, and damage to nervous system
- **Indoor Air**
  - Indoor pollutant levels often higher than outdoors (and Americans spend 90 percent of their time indoors)
  - Radon is the second leading cause of lung cancer – responsible for 15,000 to 22,000 deaths per year

# Key OAR Responsibilities

- High-risk regulatory, market-based and voluntary programs
- Technical tools for states and tribes
- Program assessment

# OAR "Science" Activities

## In Direct Support of OAR Programs

- **Exposure/Risk Assessment**
  - Air and radiation monitoring
  - Emissions characterization/factors – mobile and stationary sources
  - Risk assessment – use of air models and hazard information
  - Support for radiation programs

- **Program Development and Assessment**
  - Modeling – options/impacts
  - 812 benefits assessment

- **Technology Development/Assessment**
  - Control technology evaluation (cost/effectiveness)
  - Clean air technology (CAT)

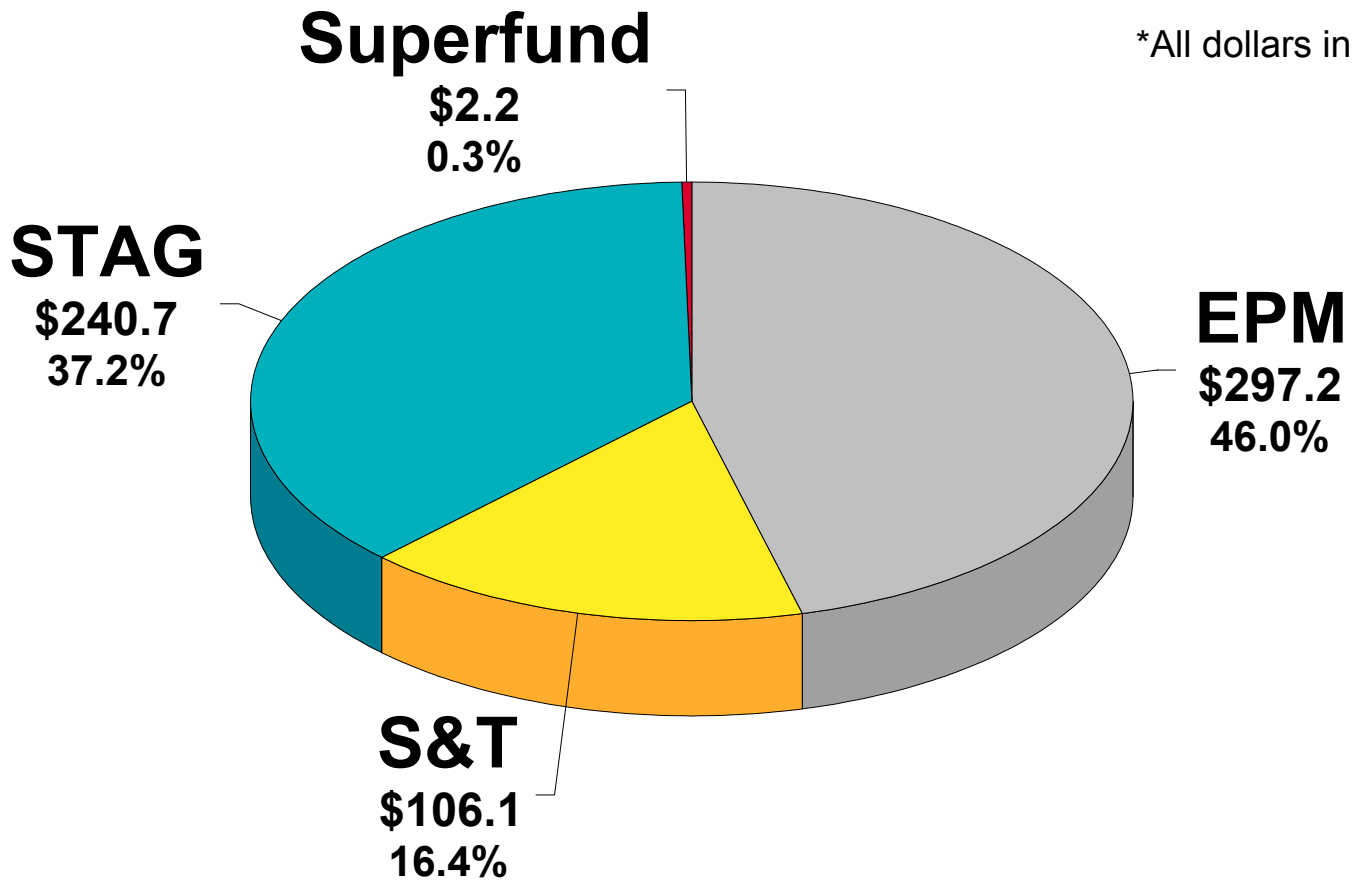
# Budget Development

- Work within statutory requirements
- Look at health and environmental risks
- Emphasize long-range planning
- Jointly set priorities with ORD

# Budget Distribution

- OAR's budget distributed among four EPA appropriations:
  - **Environmental Program and Management (EPM)**
    - funds many HQ programs & all regional programs
  - **Science and Technology (S&T)**
    - funds air & radiation labs & entire mobile source office
  - **State and Tribal Assistance Grants (STAG)**
    - funds air management programs & state radon programs
  - **Superfund**

# FY 2003 Requested Budget
## (by appropriation)




*All dollars in millions

**Total Request: $646.3 million**

# Coordination with ORD

- Excellent working relationship with ORD
- Staff level coordination
- Examples include:
  - PM research and monitoring coordination
  - Integrated mercury program
  - Coordinated air quality and climate change initiatives